

Claims

1. A device for sintering of a mold body, especially of silicon dioxide soot, in a gas-tight chamber, the device for vertical feeding of the mold body into a heating zone being equipped with a hoisting appliance extending into an inner space of the chamber through a duct, such hoisting appliance being mobile by means of a drive arranged outside of the chamber, **characterized in that** the hoisting appliance (6) has a drive shaft (15) extending through the duct (18) into the inner space (4) of the chamber (3) which is connected to the drive (16).
2. A device according to Claim 1, **characterized in that** the hoisting appliance (6) in the area of the heating zone (5) has a link chain (7, 40) consisting of individual links (27).
3. A device according to Claim 2, **characterized in that** the link chain (7, 40) can be deviated from the vertical traction direction at a deviation space (29).
4. A device according to Claim 2 or 3, **characterized in that** the link s (27) of the link chain (7) are connected to each other so that any rotation around the axis of the main extension of the link chain (7) is essentially excluded.
5. A device according to at least any one of the Claims 2 to 4, **characterized in that** the links (27) of the link chain (7, 40) are provided with a fixed link (30) - each or with oval eyelets (41), such fixed links (30) or oval eyelets (41) being slewably connected by an axis (35).
6. A device according to at least any one of the Claims 2 to 5, **characterized in that** the link chain (7, 40) is provided with individual rollers (28), each roller on deviation being supported on the deviation space (29).

7. A device according to at least any one of the Claims 5 or 6, **characterized in that** the external dimensions (height h) of the fixed links (30) or oval eyelets (41) are smaller than the diameter (D) of the rollers (28).

8. A device according to at least any one of the Claims 5 to 7, **characterized in that** the deviation space (29) is provided with a recess (38) for the fixed links (30) or oval eyelets (41).

9. A device according to at least one of the above Claims, **characterized in that** the deviation space (29) is arranged at a deviation wheel (11).

10. A device according to Claim 9, **characterized in that** the deviation wheel (11) is provided with a chain wheel positively engaging into the rollers (28) of the link chain (7, 40).

11. A device according to at least any one of the above Claims, **characterized in that** the deviation wheel (11) can be driven by means of the drive shaft (15).

12. A device according to at least any one of the above Claims, **characterized in that** the link chain (7, 40) is connected through a traction rope (13) to a take-up reel (14) driven by means of the drive shaft (15).

13. A device according to at least any one of the above Claims, **characterized in that** the links (27) of the links chain (7, 40) are manufactured from a tensile and temperature-resistant material.

14. A device according to at least any one of the above Claims, **characterized in that** the links (27) are manufactured from a mineral carbon material reinforced by carbon fiber.

15. A device according to at least any one of the above Claims, **characterized in that** a force-sensing device (21) is provided to determine a force acting upon the hoisting appliance (6).

16. A device according to Claim 15, characterized in that the force-sensing device (21) is equipped with a strain control strip (24) to determine the force acting upon the deviation space (29).
17. A device according to at least any one of the above Claims, characterized in that the device (1) is equipped with a guiding appliance (26) for the link chain (7, 40) which excludes any deviation diagonally to the traction direction of the link chain (7, 40).
18. A device according to at least any one of the above Claims, characterized in that the device (1) has a catch (25) to limit the vertical hoisting movement.